

Asia Pacific
Bangkok
Beijing
Hanoi
Ho Chi Minh City
Hong Kong
Jakarta
Kuala Lumpur
Manila
Melbourne
Shanghai
Singapore
Sydney
Taipei
Tokyo

Europe & Middle East
Abu Dhabi
Almaty
Amsterdam
Antwerp
Bahrain
Baku
Barcelona
Berlin
Brussels
Budapest
Cairo
Düsseldorf
Frankfurt / Main
Ganava
Kyiv
London
Madrid
Milan
Moscow
Munich
Paris
Prague
Riyadh
Rome
St. Petersburg
Stockholm
Vienna
Warsaw
Zurich

North & South America
Bogotá
Brasília
Buenos Aires
Caracas
Chicago
Dallas
Guadalajara
Houston
Juarez
Mexico City
Miami
Montreal
New York
Palo Alto
Porto Alegre
Rio de Janeiro
San Diego
San Francisco
Santiago
Sao Paulo
Tijuana
Toronto
Valencia
Washington, DC

April 6, 2012

Kathleen Kelly Schneiders
Associate Regional Counsel
United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

John W. Watson
Tel: +1 312 861 2646
John.Watson@bakermckenzie.com

Via Email and Messenger

RE: Peabody Midwest Mining, LLC
Bear Run Mine, Carlisle, IN
Clean Air Act Section 114 Request for Information

Dear Kathleen:

Peabody Midwest Mining, LLC ("Peabody") is in receipt of your letter of March 15, 2012 requesting a response from the Company to certain outstanding issues with respect to the proposed Bear Run Mine Fugitive Dust Monitoring Plan ("Monitoring Plan") submitted by Peabody in response to U.S. EPA's recent Section 114 Request for Information. This letter provides the additional information requested by the Agency and further responds to each open issue. With Agency concurrence, Peabody is prepared to proceed with the implementation of the proposed Monitoring Plan consistent with the accommodations provided in this letter.

As a general matter, Peabody remains troubled by the Agency's apparent insistence on Peabody's pursuit of an exceedingly broad and costly monitoring initiative in connection with this Section 114 request. The Agency's Section 114 authority is not unlimited and any request for information, especially one involving the implementation of future monitoring and analysis, must be appropriately scoped and may not impose undue time, cost and resource burdens on a regulated entity. In this case, the initial monitoring program requested by U.S. EPA will cost as much as \$400,000 and take over a year to implement. This level of effort is unreasonable and unduly burdensome, especially as directed at an issue where the Indiana Department of Environmental Management ("IDEM"), U.S. EPA's approved permitting and enforcement authority, has expressly concluded that no violations of applicable regulatory requirements have been found to date.

For its part, by submittal dated January 20, 2012, Peabody proposed a technically rigorous Monitoring Plan consistent with both U.S. EPA practice in the Region and specific direction from IDEM. This Monitoring Plan is designed to provide U.S. EPA with exactly the type and level of information required to fulfill its purposes under the Clean Air Act. As such, it is appropriate, properly scoped and, under any construct, fulfills the language, intent and purposes of Section 114. As set forth below, Peabody recognizes that additional or extended monitoring commitments may be requested by U.S. EPA in light of the results of the

monitoring conducted by Peabody as proposed in its Monitoring Plan. At present, though, the Monitoring Plan advanced by Peabody is fully responsive to the Agency's Section 114 request.

With respect to the specific issues raised in your March 15th correspondence, Peabody offers the following additional responsive information:

Length of Monitoring Period

Peabody's Monitoring Plan proposes four months of monitoring as opposed to the one year requested by U.S. EPA. Importantly, Peabody has proposed to conduct the requested monitoring during the worst case Summer monitoring period when dust emissions associated with mining operations will be at their highest levels. As noted, Peabody is cognizant of the fact that, should this highly representative sampling period identify potential compliance concerns, the Agency will be seeking to expand the required scope of the monitoring program. For now, however, especially in light of IDEM's conclusions on the compliance status of Peabody's operations, Peabody is entitled to proceed with this initial round of monitoring without the additional cost and resource commitments requested in your initial plan. ?

Striking w/ 4 month In an effort to resolve this issue, Peabody is prepared to proceed with the monitoring set forth in its Monitoring Plan for the June through September time period. Upon completion of this initial round of monitoring, Peabody will commit to a meeting with the Agency to discuss the results of this round of monitoring and the site specific conditions encountered during the sampling period and the need for and appropriateness of additional monitoring beyond the September time frame.

Process for Siting Monitors

As Peabody explained in the proposed Monitoring Plan, an established process exists for determining the proper location of air monitors for any Clean Air Act emissions testing program. This process includes the assessment and analysis of a variety of criteria, including numerous site specific considerations. In response to U.S. EPA's request for site monitoring, Peabody retained Bill Monnett of McVehil-Monnett Associates, Inc. ("MMA") to prepare and implement the proposed Monitoring Plan. Mr. Monnett has over 35 years of experience conducting air emission monitoring at surface coal mining sites and is a demonstrated expert in the development and implementation of effective air emissions monitoring programs for the coal industry. - Do we know anything about this company?

To ensure Peabody's ability to meet the proposed deadlines for commencement of monitoring as proposed in its Monitoring Plan, Mr. Monnett was directed to proceed with the monitoring site selection process. Enclosed as Appendix A is a summary report from MMA briefly summarizing the process followed to identify proper monitoring locations. As explained in greater detail in Appendix A, the monitoring site selection process followed

established regulatory procedures and included a review by MMA of relevant wind roses and a comprehensive site inspection of the Bear Run Mine site by Mr. Monnett. Consistent with U.S. EPA guidance, Mr. Monnett considered a number of criteria in developing appropriate monitoring sites during the on-site inspection of the Bear Run Mine, including the need to site proposed monitoring locations in proximity to neighboring residences and the active mine site to capture maximum off-site particulate emission concentrations and at locations that were geographically appropriate and unimpeded by site limitations, including heavy forest cover confronted at the Bear Run Mine site.

Included with the MMA report describing the site selection process is a detailed map showing the location of the proposed monitoring sites and on and off-site features of relevance to the siting process (e.g., neighboring residences, mine operations, etc.). As referenced in Appendix A, Mr. Monnett is confident that the siting process has properly sited the air monitors consistent with U.S. EPA mandated practices and that the identified monitoring locations are perfectly placed to assess worst case emissions from the mine given their proximity to neighboring residences and the active mining areas. As noted in the MMA report, MMA did not rely on AERMOD modeling to locate the proposed monitoring sites. AERMOD models are ill-suited to applications such as large surface coal mines where an understanding of site specific features and potential impacts are so important to the assessment process. Moreover, according to Mr. Monnett, any attempt to devise an accurate and reliable AERMOD modeling protocol for the Bear Run Mine would cost in the range of \$50,000 to \$100,000 to implement. As explained by Mr. Monnett, any AERMOD conclusions would ultimately require site specific reassessment and yield results and proposed monitoring locations exactly where now proposed as a result of the MMA monitoring site selection process.

Peabody is confident that the information provided in Appendix A summarizing the siting process as well as the associated maps depicting the locations of these monitors (and their proximity to property boundaries, neighboring residences, the active pit and other relevant site features and constraints) will provide sufficient information for the Agency to concur regarding the appropriateness of chosen monitoring locations. Peabody will make Mr. Monnett available for additional discussion should you have any further questions on the monitoring site selection process.

FRM v. FEM Monitors

Peabody's Monitoring Plan proposes the use of Federal Reference Method ("FRM") PM-10 samplers for this monitoring program. There is a substantial additional cost associated with using the U.S. EPA requested FEM monitors - \$15,000 for FRMs v. \$75,000 for FEMs. Moreover, IDEM has indicated a preference for the use of FRM samplers as it continues to question the accuracy of the FEM monitors. Finally, contrary to U.S. EPA's assertions in your March 15th letter, the FRM samplers are not only sufficient to determine compliance with the 24 hour standard, but continue to be recognized in Agency regulations as approved

*Are FEMs
not accurate?
What are the
problems with
FRMs?*

Does IDEM usually prefer FRM? why?

monitors for precisely the type of sampling proposed to be conducted under this Monitoring Plan. See 40 CFR Part 50, Appendix J, Section 7.1 (PM10 Sampler).

Given the clear cost considerations, an IDEM preference for FRM samplers, and the suitability of these samplers under the Agency's own regulations, the use of FRM monitors is appropriate and justified here. As such, Peabody's proposal represents a proper response to the Agency's Section 114 request.

Reporting

- Peabody will provide data in electronic format as requested by U.S. EPA.

Lead Results and Sampling

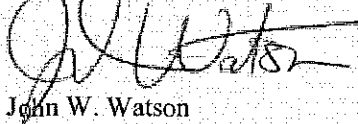
The final issue raised by the Agency in your March 15th letter relates to data on the lead content of coal from the Bear Run Mine. Enclosed at Appendix B is a short memorandum from MMA confirming that the data provided by Peabody on monthly lead sampling for 2011 is from coal produced at the Bear Run Mine. The memorandum also responds to the other questions raised in your letter on the lead data provided with the original proposed Monitoring Plan.

Based on the information provided by Peabody on lead sampling at the Bear Run Mine, Peabody reiterates its position in its initial response to the Section 114 request that no additional lead sampling of any kind is appropriate. As noted previously, the lead content in Bear Run Mine coal is below background soil concentrations in Indiana soils. Additionally, as explained in Appendix B, MMA has calculated lead concentrations associated with PM emissions at the Bear Run Mine. These calculations clearly establish that the calculated tons per year of lead emissions associated with the Bear Run Mine are well below any levels that would trigger regulatory action of any kind. This conclusion is of course consistent with the industry-wide regulation of PM emissions associated with coal mining operations and the absence of any regulatory requirements to monitor lead concentrations associated with such emissions at coal mines across the United States.

Peabody appreciates the opportunity to provide this response and U.S. EPA's consideration of the additional information provided herein. Peabody has proposed a comprehensive and technically sound Monitoring Plan, with associated significant cost and resource commitments, in response to the Agency's Section 114 request. Based on the nature of the request and the Company's desire to manage financial considerations and the interests of IDEM, as the responsible agency for regulation and enforcement of air emissions at the site, Peabody is confident that its proposed Monitoring Plan fully satisfies its obligations to the Agency under its Section 114 authority. Peabody is prepared to proceed with implementation of the proposed Monitoring Plan consistent with the additional commitments

provided herein immediately upon approval by U.S. EPA. We are available to discuss any outstanding issues at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "John W. Watson", is written over the word "Sincerely,".

John W. Watson

cc: Mary Frontczak

CHIDMS1/3014744.1

APPENDIX A

MEMORANDUM

TO: John Watson, Baker & McKenzie, LLP

FROM: Bill Monnett, McVehil-Monnett Associates, Inc.

DATE: April 4, 2012

RE: Ambient Monitoring Siting at Peabody Midwest Mining's (PMM) Bear Run Mine

In accordance with Section 2.0 of the Bear Run Mine Fugitive Dust Monitoring Plan, dated January 20, 2012, McVehil-Monnett Associates, Inc. ("MMA") has completed its technical review of the Bear Run operations for the purpose of selecting appropriate sites for the monitoring of maximum short term concentrations of PM₁₀ as requested by U.S. EPA. This technical review process included a thorough review of available wind roses and other relevant information provided by PMM and an inspection of the Bear Run Mine and surrounding site features and property. Per the directive of U.S. EPA Region V, two sites were to be selected in close proximity to the active pit area to assess worst case property line concentrations and a third site was selected in a generally upwind direction to describe natural background concentrations being transported into the mine.

Review of Wind Rose Data and Other Information

In furtherance of our technical review, MMA representatives reviewed relevant and applicable five-year wind rose data from Lawrenceville, Illinois (Attachment 1). While at the mine, I was also provided maps/aerial photos showing PMM's land holdings, mine pit sequencing and locations of neighboring residences.

Site Inspection

The goal of the site inspection was to apply relevant wind rose and other data to uniquely site specific features and considerations to ensure the accurate siting of monitors to assess worst case site conditions and emissions from the mine operations. Consistent with regulatory guidance, the overriding objective was to identify candidate locations close to active mining areas, downwind of the active pit. Pursuant to EPA's Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Ambient Air Specific Methods, those locations also needed to meet the following siting criteria:

1. good exposure to general wind flows and unobstructed by trees or topographic features
2. access controlled by or available to PMM
3. reasonable access to line power
4. proximate to neighboring residences

As one travels into the mine site, it becomes immediately obvious that the entire area outside the mine boundary is heavily treed, which drastically limits the number of suitably exposed/open sites for PM₁₀ monitoring. In fact, the Greene-Sullivan State Forest backs the line of neighboring residences immediately east and downwind of the active pit (Pit 1 - see Attachment 2). In addition, State Highway 159 and the railroad also parallel the eastern Bear Run permit boundary, further limiting suitable sites. Armed with that information, a tour of the site was conducted around the mine perimeter with site representatives familiar with ownership/access status.

While the Lawrenceville wind rose shows a significant component of southerly wind, it is immediately apparent that PMM owns and controls property for over 1.5 miles due north of the active pit. The nearest

residences north of the active pit area are several miles away, while neighboring residences are as close as 1100 feet to the east of the active pit. Based on this detailed site inspection, I was able to find two downwind sites and one upwind site meeting the requisite criteria. These locations are shown in the attached map and described more fully below.

The southernmost site (#1) is located just off SH159 on an abandoned lot now owned by PMM. As referenced on the attached map, this proposed monitoring site is immediately adjacent to several homes, a number of which are occupied by residents who have registered past complaints regarding dust impacts during active mining operations. One such residence is approximately 100 feet north of the selected monitoring site. Moreover, this site is but 1300 feet southeast of the active pit and represents the closest practical location to those emission-causing activities.

The location selected for Site #2 is roughly 2500 feet northeast of the active pit and just north of the northernmost resident who has raised historical concerns regarding mining operations and dust. This location is very well suited to measure concentrations from the strong southerly and southwesterly components shown in the Lawrenceville wind rose.

Finally, I identified an upwind site (#3) on property controlled by PMM that sits approximately 4.0 miles west/northwest of the active pit. This site is well exposed to characterize background concentrations upwind of the PMM property. It also offers an excellent location for the requisite, 10-meter meteorological tower.

Conclusions

The technical review has successfully identified the appropriate locations for proposed monitoring sites. The chosen locations rely heavily on wind rose data and relevant site specific features and other relevant considerations, including access rights to property and the availability of utilities. MMA is confident that the identified sites are properly located to determine any impacts on nearby residences and to assess maximum off-property PM₁₀ concentrations. The review and site inspection also confirmed that the presence of the active pit and off-site receptors makes the siting process straightforward, with the location of proper monitoring sites easily discernible. In light of these considerations and the outcome of the siting process, no technical benefit will be gained by conducting additional modeling or other assessments, including the use of the very costly AERMOD model proposed by U.S. EPA. Models such as AERMOD are notoriously poor at characterizing either the magnitude or location of impacts from complex sources like a surface coal mine. Any modeling results would also need to be reassessed in light of site specific considerations and off-site receptors and would lead back to the identified sites proposed in our review.

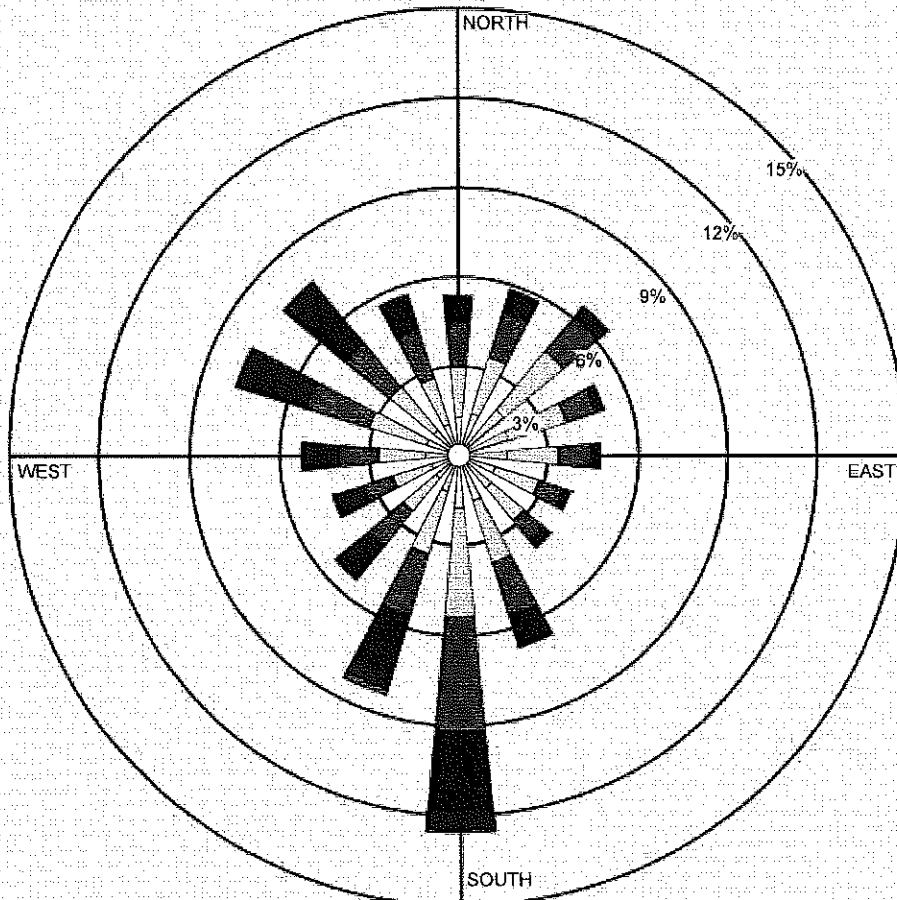
ATTACHMENT 1

WIND ROSE PLOT:

Lawrenceville International Airport, IL (KLWW)
2006-2010 Meteorological Data

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

DATA PERIOD:

Start Date: 1/2/2006 - 00:00
End Date: 12/31/2010 - 23:00

COMPANY NAME:

Peabody Midwest Mining, LLC

MODELER:

CALM WINDS:

0.70%

TOTAL COUNT:

43135 hrs.

AVG. WIND SPEED:

3.94 m/s

DATE:

1/10/2012

PROJECT NO.:

ATTACHMENT 2



APPENDIX B

MEMORANDUM

TO: John Watson, Baker & McKenzie, LLP

FROM: Bill Monnett, McVehil-Monnett Associates, Inc.

DATE: April 4, 2012

RE: Peabody Midwest Mining, LLC Bear Run Mine - EPA Section 114 Request for Information
Lead Analysis and Monitoring

At your request, this memorandum will respond to follow up questions from U.S. EPA regarding the source and significance of monthly lead content sampling data provided to the Agency in connection with the submittal of the Bear Run Fugitive Dust Monitoring Plan ("Monitoring Plan"), prepared by McVehil-Monnett Associates, Inc. ("MMA"), dated January 20, 2012, for the Peabody Midwest Mining, LLC ("PMM") Bear Run mine. Specifically, MMA prepared a memorandum, dated January 10, 2012, summarizing the results of lead sampling data for coal sourced from the Bear Run mine. A copy of that memorandum is attached hereto as Appendix A. The Agency raised subsequent questions regarding the table of lead content data for the coal included with the memorandum and likewise requested confirmation that the data actually reflected coal data from Bear Run.

By way of response, this memorandum will confirm that the table summarizing lead data, which was provided to U.S. EPA with the Monitoring Plan, was prepared utilizing coal sampling data collected in 2011 at the Bear Run mine. Further, the abbreviation "TE" means Trace Element, and "STK" means Stoker Coal. These are not location references, but rather designations for the analysis type and coal type.

On the issue of the appropriateness of additional lead monitoring at Bear Run beyond PMM's monthly coal sampling, MMA reiterates its conclusion in its January 10th memorandum that no additional monitoring or sampling is required or warranted as the lead content in PMM's coal is below background lead concentrations in Indiana soils. Furthermore, MMA has calculated a reasonable worst case potential to emit for lead at the Bear Run mine based on the worst case particulate matter ("PM") emissions in the Bear Run permit and the average lead concentrations of Bear Run mine coal. As shown below, these calculations yield an annual potential to emit for lead of 0.118 tons per year.

The worst case particulate matter (PM) emissions listed in the Bear Run permit are the uncontrolled unlimited PTE listed in Attachment A (Emissions Calculations) in the permit.

Coal prep plant:	320.03 TPY (source and fugitive)
Coal mine:	11,155.09 TPY (fugitive)
Total	11,475.12 TPY

As shown by the lead data provided in Appendix B of our January 10 submittal, the average lead concentration of Bear Run Mine coal is 10.25 ppm. Using the average lead concentration and uncontrolled, unlimited PM PTE, the lead PTE is 0.118 tons per year.

The calculated PTE for lead at Bear Run is well below concentrations that would trigger any kind of federal or state regulatory action. The only regulatory requirement we find for lead monitoring is in 40 CFR Part 58. This rule is applicable to state and local air agencies setting up monitoring networks, and to owners/operators of proposed Prevention of Significant Deterioration (PSD) sources. While this rule is not in any way applicable to Peabody's Bear Run facility (because Bear Run is not a major PSD source), it can be used as a benchmark for understanding at what level an agency might consider the need for potential monitoring. 40 CFR §58.10(a)(4) sets lead monitoring requirements for certain sources emitting 0.5 tons per year lead or more. The Bear Run facility potential to emit (PTE) for lead is well below this value. Therefore, there is no regulatory basis or scientific rationale for additional lead monitoring of any

kind at Bear Run. For its part, MMA is aware of no lead monitoring that is currently being conducted at any surface coal mine operating in the United States.

Appendix A

M E M O R A N D U M

TO: John Watson, Baker & McKenzie, LLP

FROM: Bill Monnett, McVehil-Monnett Associates, Inc.

DATE: January 10, 2012

RE: Peabody Midwest Mining, LLC Bear Run Mine – EPA Section 114 Request for Information

McVehil-Monnett Associates, Inc. (MMA) has reviewed the U.S. EPA's Clean Air Act Section 114(a) Request for Information, dated November 17, 2011, received by Peabody Midwest Mining, LLC (PMM) regarding its Bear Run Mine located in Carlisle, Indiana. As discussed, the Section 114(a) request includes a request for PMM to collect and analyze three samples of Bear Run Mine coal for lead content. PMM currently conducts monthly sampling of Bear Run Mine coal for lead content. The results of the lead sampling is summarized below.

Lead Content of Bear Run Mine Coal

The attached table was prepared by MMA from laboratory results for lead content provided by PMM and their contract lab. This table shows the average lead concentration of Bear Run Mine coal to be 10.25 ppm. For comparison purposes, the average naturally-occurring background lead content of Indiana soils is 16 ppm. See *USGS Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States*, U. S. Geological Survey Professional Paper 1270, U. S. Government Printing Office, Washington, D. C., 1984. Therefore, the average lead concentration of Bear Run Mine coal is significantly less than the average background concentration in Indiana soils.

Conclusion

Regular lead sampling conducted by PMM at the Bear Run Mine confirms that lead content in Bear Run Mine coal is considerably less than naturally occurring concentrations found in Indiana soils. These concentrations present no risk of exceedances of any Clean Air Act regulatory thresholds or National Ambient Air Quality Standards.

**MONTHLY COAL LEAD CONTENT AT BEAR RUN MINE
FOR 2011**

Month	Location: TE			Location: STK-TE	
	Low Sulfur (µg/g)	Mid Sulfur (µg/g)	High Sulfur (µg/g)	Low Sulfur (µg/g)	High Sulfur (µg/g)
January	11.6	9.5	8.9	9.0	6.2
February	10.8	8.7	7.5	6.7	7.5
March	16.9	12.1	5.8	8.4	8.0
April	7.7	8.9	8.1	10.5	8.7
May	23.7	8.4	8.2	5.7	29.4
June	10.0	8.5	7.1	7.1	8.7
July	11.7	10.7	5.9	6.8	6.6
August	12.1	9.9	7.4	11.5	9.7
September	17.5	9.7	8.2	12.7	7.4
October	11.3	8.3	7.0	8.2	6.8
November	12.9	10.4	9.2	10.9	16.4
December	--	--	--	--	--
Minimum	7.7	8.3	5.8	5.7	6.2
Maximum	23.7	12.1	9.2	12.7	29.4
Arith. Mean	13.29	9.55	7.57	8.86	10.49
Geo. Mean	11.60	9.50	8.90	9.00	6.20

Statistical Summary of Coal Lead Content from All Samples:

Parameter	Concentration (µg/g)
Minimum	5.7
Maximum	29.4
Arith. Mean	10.25
Geo. Mean	9.20

